

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A developer fuser comprising:

a first heating element for transferring energy

a second heating element for transferring energy

a controller, controlling a first value of a first parameter of the first heating element and a second value of the first parameter of the second heating element, for fusing a developer to a media

wherein

the first value is different in magnitude from the second value;

the first value and the second value are variable and set according to a physical characteristic of the media, a physical characteristic of a toner to be applied to the media, and an environmental condition.

Claim 2 (Previously presented): The developer fuser of claim 1,

wherein the controller is further controlling the first value based on a first datum from a first sensor and is further controlling the second value based on a second datum from a second sensor.

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

Claim 3 (Original): An image forming apparatus comprising the developer fuser of claim 1.

Claim 4 (Original): A copy machine comprising the developer fuser of claim 1.

Claim 5 (Currently amended): A controller for a developer fuser adapted to:

receive a media type datum, a first temperature sensor datum, and a second temperature sensor datum,

control a first value of a variable parameter of a first heating element and a second value of the variable parameter of a second heating element based on the media type datum, the first temperature sensor datum, and the second temperature sensor datum,

wherein

the first value is different in magnitude from the second value;

the first value and the second value are variable and set according to a physical characteristic of the media, a physical characteristic of a toner to be applied to the media, and an environmental condition.

Claim 6 (Previously presented): The controller for a developer fuser of claim 5, wherein the controller is further adapted to

receive at least one of a humidity datum, a media thickness datum, a media moisture content datum, a media temperature datum, and a developer temperature datum, and

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

control the first value and the second value based on at least one of the humidity datum, the media thickness datum, the media moisture content datum, the media temperature datum, and the developer temperature datum.

Claim 7 (Original): An image forming apparatus comprising the controller for the developer fuser of claim 5.

Claim 8 (Original): A copy machine comprising the controller for the developer fuser of claim 5.

Claim 9 (Previously presented): A system for fusing developer comprising:

a first resonance circuit comprising a switching element, a power source and a first coil,
a second resonance circuit comprising the switching element, the power source and a second coil, the second coil electrically connected to the first coil at a node,

wherein the switching element is adapted to cause a first reduced frequency through the first resonance circuit, the first reduced frequency depending on a media type and a datum of a first sensor associated with the first coil, and a second reduced frequency through the second resonance circuit, the second reduced frequency depending on the media type and a datum of a second sensor associated with the second coil.

Claim 10 (Previously presented): The system for fusing developer of claim 18, wherein

the first reduced frequency further depends on a datum from at least one of a the first temperature sensor associated with the first coil, a humidity sensor, a media thickness sensor, a

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

media moisture content sensor, a media temperature sensor, and a developer temperature sensor,
and

the second reduced frequency further depends on a datum from at least one of a second temperature sensor associated with the second coil, the humidity sensor, the media thickness sensor, the media moisture content sensor, the media temperature sensor, and the developer temperature sensor.

Claim 11 (Original): An image forming apparatus comprising the system for fusing developer of claim 9.

Claim 12 (Original): A copy machine comprising the system for fusing developer of claim 9.

Claim 13 (Currently amended): A process for reducing power consumption in a developer fuser comprising:

a control system controlling a first value of a first parameter of a first heating element and a second value of the first parameter of a second heating element to maintain a standby temperature,

the control system receiving a signal to fuse developer,

the control system controlling the first value and the second value based on at least one of a media type datum, a datum of a first temperature sensor associated with the first heating element, and a datum of a second temperature sensor associated with the second heating element, to fuse the developer,

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

the control system receiving a signal to return to maintain the standby temperature,
the control system controlling the first value and the second value to maintain the standby temperature;

wherein

the first value and the second value are variable and set according to a physical characteristic of the media, a physical characteristic of a toner to be applied to the media, and an environmental condition

Claim 14 (Previously presented): The process for reducing power consumption in a developer fuser of claim 13, wherein the control system controlling step to fuse the developer further comprises the control system controlling the first value and the second value based on a datum from a sensor selected from the group consisting of a first temperature sensor associated with the first heating element, a second temperature sensor associated with the second heating element, a humidity sensor, a media thickness sensor, a media moisture content sensor, a media temperature sensor, and a developer temperature sensor.

Claim 15 (Previously presented): The developer fuser of claim 1

wherein the first parameter is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

Claim 16 (Previously presented): The developer fuser of claim 15 wherein

the controller further controlling a third value of a second parameter of the first heating element and a fourth value of the second parameter of the second heating element, for fusing the developer to the media

wherein the second parameter is different from the first parameter and is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Claim 17 (Previously presented): The developer fuser of claim 2

wherein the first sensor and the second sensor are of the same kind and are selected from the group consisting of a temperature sensor associated with the respective heating element, a humidity sensor, a media thickness sensor, a media moisture content sensor, a media temperature sensor, and a developer temperature sensor.

Claim 18 (Previously presented): The system for fusing developer of claim 9

wherein the first sensor and the second sensor comprise temperature sensors.

Claim 19 (Previously presented): The process for reducing power consumption in a developer fuser of claim 13

wherein the first parameter is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

Claim 20 (Previously presented): The process for reducing power consumption in a developer fuser of claim 19 wherein

controlling a third value of a second parameter of the first heating element and a fourth value of the second parameter of the second heating element to fuse the developer

wherein the second parameter is different from the first parameter and is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Claim 21 (New): A developer fuser comprising:

a first heating element for transferring energy

a second heating element for transferring energy

a controller, controlling a first value of a first parameter of the first heating element and a second value of the first parameter of the second heating element, for fusing a developer to a media

wherein

the first value is different in magnitude from the second value

the first parameter is selected from the group consisting of current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

Claim 22 (New): The developer fuser of claim 21 wherein

the controller further controlling a third value of a second parameter of the first heating element and a fourth value of the second parameter of the second heating element, for fusing the developer to the media

wherein the second parameter is different from the first parameter and is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Claim 23 (New): A process for reducing power consumption in a developer fuser comprising:

a control system controlling a first value of a first parameter of a first heating element and a second value of the first parameter of a second heating element to maintain a standby temperature,

the control system receiving a signal to fuse developer,

the control system controlling the first value and the second value based on at least one of a media type datum, a datum of a first temperature sensor associated with the first heating element, and a datum of a second temperature sensor associated with the second heating element, to fuse the developer,

the control system receiving a signal to return to maintain the standby temperature,

the control system controlling the first value and the second value to maintain the standby temperature

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

wherein the first parameter is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Claim 24 (New): The process for reducing power consumption in a developer fuser of claim 23 wherein

controlling a third value of a second parameter of the first heating element and a fourth value of the second parameter of the second heating element to fuse the developer

wherein the second parameter is different from the first parameter and is selected from the group consisting of power to, current through, frequency to, resonance of, inductance of, voltage across, and temperature at the respective heating element.

Claim 25 (New): A controller for a developer fuser adapted to:

receive a media type datum, a first temperature sensor datum, and a second temperature sensor datum,

control a first value of a variable parameter of a first heating element and a second value of the variable parameter of a second heating element based on the media type datum, the first temperature sensor datum, and the second temperature sensor datum,

wherein

the first value is different in magnitude from the second value

receive at least one of a humidity datum, a media moisture content datum, a media temperature datum, and a developer temperature datum, and

Appl. No. 10/782,281

Amdt. Dated 3/9/2006

Response to Office action dated 11/15/2005

control the first value and the second value based on at least one of the respectively received humidity datum, the media moisture content datum, the media temperature datum, and the developer temperature datum.